

FORM PTO-1449

INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.
1700.0030003/JAG/BJD/SJEAPPLICATION NO.
10/733,582

FIRST NAMED INVENTOR

Renner *et al.*FILING DATE
December 12, 2003ART UNIT
1614

U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
|---------------------|-----|--------------------|------------|------------------------------|-------|-----------|-------------|
| MM | AA1 | 5,071,651 | 12/10/1991 | Sabara <i>et al.</i> | 424 | 89 | 03/05/1990 |
| | AB1 | 5,334,394 | 08/02/1994 | Kossovsky <i>et al.</i> | 424 | 494 | 01/04/1993 |
| | AC1 | 5,374,426 | 12/20/1994 | Sabara <i>et al.</i> | 530 | 403 | 10/30/1989 |
| | AD1 | 5,739,026 | 04/14/1998 | Garoff <i>et al.</i> | 435 | 240.2 | 08/13/1992 |
| | AE1 | 5,770,380 | 06/23/1998 | Hamilton <i>et al.</i> | 435 | 7.1 | 09/13/1996 |
| | AF1 | 5,766,602 | 06/16/1998 | Xiong <i>et al.</i> | 424 | 218.1 | 01/19/1995 |
| | AG1 | 5,792,462 | 08/11/1998 | Johnston <i>et al.</i> | 424 | 199.1 | 05/23/1995 |
| | AH1 | 5,814,482 | 09/29/1998 | Dubensky, Jr. <i>et al.</i> | 435 | 69.3 | 10/30/1996 |
| | AI1 | 5,871,747 | 02/16/1999 | Gengoux-Sedlik <i>et al.</i> | 424 | 208.1 | 04/28/1995 |
| | AJ1 | 5,789,245 | 08/04/1998 | Dubensky, Jr. <i>et al.</i> | 435 | 320.1 | 10/30/1996 |
| | AK1 | 6,004,763 | 12/21/1999 | Gengoux <i>et al.</i> | 435 | 7.24 | 05/12/1998 |

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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
|---------------------|-----|--------------------|------------|---------|-------|-----------|-------------|
| MM | AL1 | EP 0 259 149 A2 | 03/09/1988 | Europe | | | Yes No |
| | AM1 | EP 0 425 082 A1 | 05/02/1991 | Europe | | | Yes No |
| | AN1 | WO 92/11291 A1 | 07/09/1992 | WIPO | | | Yes No |
| | AO1 | WO 94/06472 A1 | 03/31/1994 | WIPO | | | X Yes No |
| | AP1 | WO 94/15585 A1 | 07/21/1994 | WIPO | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|----|----|---|---|
| MM | AR | 1 | Baba, T. W., <i>et al.</i> , "Pathogenicity of Live, Attenuated SIV After Mucosal Infection of Neonatal Macaques," <i>Science</i> 267:1820-1825 (1995), American Association for the Advancement of Science |
| | AS | 1 | Bachmann, M. F., <i>et al.</i> , "Dendritic cells process exogenous viral proteins and virus-like particles for class I presentation to CD8+ cytotoxic T lymphocytes," <i>Eur. J. Immunol.</i> 26:2595-2600 (1996), VCH Verlagsgesellschaft mbH |
| | AT | 1 | Bachmann, M. F. and Zinkernagel, R. M., "The influence of virus structure on antibody responses and virus serotype formation," <i>Immunol. Today</i> 17:553-558 (1996), Elsevier Science Ltd. |

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|---------------------|-----|--------------------|------------|--------------------------|-------|-----------|-------------|
| MM | AA2 | 4,722,840 | 02/02/1988 | Valenzuela <i>et al.</i> | 424 | 88 | 09/19/1985 |
| ↓ | AB2 | 5,698,424 | 12/16/1997 | Mastico <i>et al.</i> | 435 | 172.3 | 01/03/1995 |
| ↓ | AC2 | 5,143,726 | 09/01/1992 | Thornton <i>et al.</i> | 424 | 88 | 11/20/1989 |
| | AD2 | | | | | | |
| | AE2 | | | | | | |
| | AF2 | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
|---------------------|-----|--------------------|------------|---------|-------|-----------|-------------|
| MM | AL2 | WO 96/05293 A1 | 02/22/1996 | WIPO | | | Yes No |
| ↓ | AM2 | WO 96/30523 A2 | 10/03/1996 | WIPO | | | Yes No |
| ↓ | AN2 | WO 98/15631 A1 | 04/16/1998 | WIPO | | | Yes No |
| ↓ | AO2 | WO 99/40934 A1 | 08/19/1999 | WIPO | | | Yes No |
| ↓ | AP2 | EP 0 465 081 B1 | 01/08/1992 | Europe | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|----|----|---|--|
| MM | AR | 2 | Bachmann, M. F. and Zinkernagel, R. M., "Neutralizing Antiviral B Cell Responses," <i>Annu. Rev. Immunol.</i> 15:235-270 (April 1997), Annual Reviews Inc. |
| ↓ | AS | 2 | Borisova, G., <i>et al.</i> , "Hybrid Hepatitis B Virus Nucleocapsid Bearing an Immunodominant Region from Hepatitis B Virus Surface Antigen," <i>J. Virol.</i> 67:3696-3701 (1993), American Society for Microbiology |
| ↓ | AT | 2 | Cesareni, G., "Peptide display on filamentous phage capsids," <i>FEBS Lett.</i> 307:66-70 (1992), Elsevier Science Publishers B.V. |

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|------------------|-----|-----------------|------|------|-------|-----------|-------------|
| | AA3 | | | | | | |
| | AB3 | | | | | | |
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FOREIGN PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
|------------------|-----|-----------------|------------|---------|-------|-----------|-------------|
| MM | AL3 | WO 97/31948 A1 | 09/04/1997 | WIPO | | | Yes No |
| | AM3 | WO 99/07839 A2 | 02/18/1999 | WIPO | | | Yes No |
| | AN3 | WO 99/67293 A1 | 12/29/1999 | WIPO | | | Yes No |
| X | AO3 | EP 0 385 610 A1 | 09/05/1990 | Europe | | | Yes No |
| ↓ | AP3 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|----|----|---|--|
| MM | AR | 3 | Clark, H. F., <i>et al.</i> , "Comparative Characterization of a C-Type Virus-Producing Cell Line (VSW) and a Virus-Free Cell Line (VH2) from <i>Vipera russelli</i> ," <i>J. Natl. Cancer Inst.</i> 51:645-657 (1973), Oxford University Press |
| | AS | 3 | Connor, R. I., <i>et al.</i> , "Immunological and Virological Analyses of Persons Infected by Human Immunodeficiency Virus Type 1 while Participating in Trials of Recombinant gp120 Subunit Vaccines," <i>J. Virol.</i> 72:1552-1576 (February 1998), American Society for Microbiology |
| ↓ | AT | 3 | Cramer, R. and Suter, M., "Display of biologically active proteins on the surface of filamentous phages: a cDNA cloning system for selection of functional gene products linked to the genetic information responsible for their production," <i>Gene</i> 137:69-75 (1993), Elsevier Science Publishers B.V. |

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|------------------|-----|-----------------|------|------|-------|-----------|-------------|
| | AA4 | | | | | | |
| | AB4 | | | | | | |
| | AC4 | | | | | | |
| | AD4 | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
|------------------|-----|-----------------|------|---------|-------|-----------|-------------|
| | AL4 | | | | | | Yes No |
| | AM4 | | | | | | Yes No |
| | AN4 | | | | | | Yes No |
| | AO4 | | | | | | Yes No |
| | AP4 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|---------|----|----------|---|
| MM ↓ | AR | <u>4</u> | Daniel, M. D., <i>et al.</i> , "Protective Effects of a Live Attenuated SIV Vaccine with a Deletion in the <i>nef</i> Gene," <i>Science</i> 258:1938-1941 (1992), American Association for the Advancement of Science |
| | AS | <u>4</u> | Davis, N. L., <i>et al.</i> , "In Vitro Synthesis of Infectious Venezuelan Equine Encephalitis Virus RNA from a cDNA Clone: Analysis of a Viable Deletion Mutant," <i>Virology</i> 171:189-204 (1989), Academic Press Inc. |
| | AT | <u>4</u> | de la Cruz, V. F., <i>et al.</i> , "Immunogenicity and Epitope Mapping of Foreign Sequences via Genetically Engineered Filamentous Phage," <i>J. Biol. Chem.</i> 263:4318-4322 (1988), The American Society for Biochemistry and Molecular Biology Inc. |

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|---------------------|-----|--------------------|------|------|-------|-----------|-------------|
| | AA5 | | | | | | |
| | AB5 | | | | | | |
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| | AD5 | | | | | | |
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| | AF5 | | | | | | |
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|---------------------|-----|--------------------|------|---------|-------|-----------|-------------|
| | AL5 | | | | | | Yes No |
| | AM5 | | | | | | Yes No |
| | AN5 | | | | | | Yes No |
| | AO5 | | | | | | Yes No |
| | AP5 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|---------|----|---|---|
| MM ↓ | AR | 5 | Donnelly, J. J., <i>et al.</i> , "DNA Vaccines," <i>Annu. Rev. Immunol.</i> 15:617-648 (April 1997), Annual Reviews Inc. |
| | AS | 5 | Fehr, T., <i>et al.</i> , "Role of Repetitive Antigen Patterns for Induction of Antibodies Against Antibodies," <i>J. Exp. Med.</i> 185:1785-1792 (May 1997), The Rockefeller University Press |
| | AT | 5 | Förster, E., <i>et al.</i> , "Natural and recombinant enzymatically active or inactive bee venom phospholipase A ₂ has the same potency to release histamine from basophils in patients with Hymenoptera allergy," <i>J. Allergy Clin. Immunol.</i> 95:1229-1235 (1995), Mosby-Year Book, Inc. |

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|---------------------|-----|--------------------|------|------|-------|-----------|-------------|
| | AA6 | | | | | | |
| | AB6 | | | | | | |
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| | AF6 | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
|---------------------|-----|--------------------|------|---------|-------|-----------|-------------|
| | AL6 | | | | | | Yes No |
| | AM6 | | | | | | Yes No |
| | AN6 | | | | | | Yes No |
| | AO6 | | | | | | Yes No |
| | AP6 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|--------------|----|---|--|
| MM ↓ V | AR | 6 | Fujiwara, K., <i>et al.</i> , "Novel Preparation Method of Immunogen for Hydrophobic Hapten, Enzyme Immunoassay for Daunomycin and Adriamycin," <i>J. Immunol. Meth.</i> 45:195-203 (1981), Elsevier/North Holland Biomedical Press |
| | AS | 6 | Gilbert, S. C., <i>et al.</i> , "A protein particle vaccine containing multiple malaria epitomes," <i>Nature Biotechnol.</i> 15:1280-1284 (November 1997), Nature Publishing Group |
| | AT | 6 | Greenstone, H. L., <i>et al.</i> , "Chimeric papillomavirus virus-like particles elicit antitumor immunity against the E7 oncoprotein in an HPV16 tumor model," <i>Proc. Natl. Acad. Sci. USA</i> 95:1800-1805 (February 1998), The National Academy of Sciences |

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|---------------------|-----|--------------------|------|------|-------|-----------|-------------|
| | AA7 | | | | | | |
| | AB7 | | | | | | |
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| | AK7 | | | | | | |

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|---------------------|-----|--------------------|------|---------|-------|-----------|-------------|
| | AL7 | | | | | | Yes No |
| | AM7 | | | | | | Yes No |
| | AN7 | | | | | | Yes No |
| | AO7 | | | | | | Yes No |
| | AP7 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|----|----|---|---|
| MM | AR | 2 | Hahn, C. S., <i>et al.</i> , "Infectious Sindbis virus transient expression vectors for studying antigen processing and presentation," <i>Proc. Natl. Acad. Sci. USA</i> 89:2679-2683 (1992), National Academy Press |
| | AS | 2 | Harding, C. V. and Song, R., "Phagocytic Processing of Exogenous Particulate Antigens by Macrophages for Presentation by Class I MHC Molecules," <i>J. Immunol.</i> 153:4925-4933 (1994), The American Association of Immunologists |
| | AT | 2 | Hilleman, M. R., "Six decades of vaccine development—a personal history," <i>Nature Med. Vaccine Suppl.</i> 4:507-514 (May 1998), Nature Publishing Group |

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|---------------------|-----|--------------------|------|------|-------|-----------|-------------|
| | AA8 | | | | | | |
| | AB8 | | | | | | |
| | AC | | | | | | |
| | AD8 | | | | | | |
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|---------------------|-----|--------------------|------|---------|-------|-----------|-------------|
| | AL8 | | | | | | Yes No |
| | AM8 | | | | | | Yes No |
| | AN8 | | | | | | Yes No |
| | AO8 | | | | | | Yes No |
| | AP8 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
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| MM ↓ V | AR | 8 | Iannolo, G., <i>et al.</i> , "Construction, Exploitation and Evolution of a New Peptide Library Displayed at High Density by Fusion to the Major Coat Protein of Filamentous Phage," <i>Biol. Chem.</i> 378:517-521 (June 1997), Walter de Gruyter & Company |
| | AS | 8 | Iannolo, G., <i>et al.</i> , "Modifying Filamentous Phage Capsid: Limits in the Size of the Major Capsid Protein," <i>J. Mol. Biol.</i> 248:835-844 (1995), Academic Press Limited |
| | AT | 8 | Jiang, X., <i>et al.</i> , "Norwalk Virus Genome Cloning and Characterization," <i>Science</i> 250:1580-1583 (1990), American Association for the Advancement of Science |

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| | AA9 | | | | | | |
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|---------------------|-----|--------------------|------|---------|-------|-----------|-------------|
| | AL9 | | | | | | Yes No |
| | AM9 | | | | | | Yes No |
| | AN9 | | | | | | Yes No |
| | AO9 | | | | | | Yes No |
| | AP9 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|---------|----|---|--|
| MM ↓ | AR | 2 | Kovacsovics-Bankowski, M., <i>et al.</i> , "Efficient major histocompatibility complex class I presentation of exogenous antigen upon phagocytosis by macrophage," <i>Proc. Natl. Acad. Sci. USA</i> 90:4942-4946 (1993), National Academy Press |
| | AS | 2 | Kratz, P. A., <i>et al.</i> , "Native display of complete foreign protein domains on the surface of hepatitis B virus capsids," <i>Proc. Natl. Acad. Sci. USA</i> 96:1915-1920 (March 1999), National Academy Press |
| | AT | 2 | Landschulz, W. H., <i>et al.</i> , "The Leucine Zipper: A Hypothetical Structure Common to a New Class of DNA Binding Proteins," <i>Science</i> 240:1759-1764 (1988), American Association for the Advancement of Science |

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|---------------------|------|--------------------|------|------|-------|-----------|-------------|
| | AA10 | | | | | | |
| | AB10 | | | | | | |
| | AC10 | | | | | | |
| | AD10 | | | | | | |
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|---------------------|------|--------------------|------|---------|-------|-----------|-------------|
| | AL10 | | | | | | Yes No |
| | AM10 | | | | | | Yes No |
| | AN10 | | | | | | Yes No |
| | AO10 | | | | | | Yes No |
| | AP10 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|----|----|-----------|---|
| MM | AR | <u>10</u> | Leake, C. J., <i>et al.</i> , "Cytopathic Effect and Plaque Formation by Arboviruses in a Continuous Cell Line (XTC-2) from the Toad <i>Xenopus laevis</i> ," <i>J. Gen. Virol.</i> 35:335-339 (1977), Society for General Microbiology |
| ↓ | AS | <u>10</u> | Lee, K. H., <i>et al.</i> , "Two-Dimensional Electrophoresis of Proteins as a Tool in the Metabolic Engineering of Cell Cycle Regulation," <i>Biotech. and Bioeng.</i> 50:336-340 (1996), John Wiley & Sons, Inc. |
| ↓ | AT | <u>10</u> | Liljeström, P. and Garoff, H., "A New Generation of Animal Cell Expression Vectors Based on the Semliki Forest Virus Replicon," <i>Bio/technology</i> 9:1356-1361 (1991), Nature Publishing Group |

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INFORMATION DISCLOSURE STATEMENT

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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
|---------------------|------|--------------------|------|------|-------|-----------|-------------|
| | AA11 | | | | | | |
| | AB11 | | | | | | |
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FOREIGN PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
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| | AL11 | | | | | | Yes No |
| | AM11 | | | | | | Yes No |
| | AN11 | | | | | | Yes No |
| | AO11 | | | | | | Yes No |
| | AP11 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|---------|----|-----------|---|
| MM ↓ | AR | <u>11</u> | Liljeström, P., "Alphavirus expression systems," <i>Curr. Opin. Biotech.</i> 5:495-500 (1994), Current Biology Ltd |
| | AS | <u>11</u> | Lo-Man, R., <i>et al.</i> , "A recombinant virus-like particle system derived from parvovirus as an efficient antigen carrier to elicit a polarized Th1 immune response without adjuvant," <i>Eur. J. Immunol.</i> 28:1401-1407 (April 1998), WILEY-VCH Verlag GmbH |
| | AT | <u>11</u> | López, O., <i>et al.</i> , "Direct formation of mixed micelles in the solubilization of phospholipid liposomes by Triton X-100," <i>FEBS Lett.</i> 426:314-318 (April 1998), Elsevier Science B.V. for Federation of European Biochemical Societies. |

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1614**U.S. PATENT DOCUMENTS**

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
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| | AA12 | | | | | | |
| | AB12 | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
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| | AL12 | | | | | | Yes No |
| | AM12 | | | | | | Yes No |
| | AN12 | | | | | | Yes No |
| | AO12 | | | | | | Yes No |
| | AP12 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|---------|----|----|---|
| MM ↓ | AR | 12 | Lundstrom, K., "Alphaviruses as expression vectors," <i>Curr. Opin. Biotech.</i> 8:578-582 (October 1997), Current Biology Ltd |
| | AS | 12 | Matsui, S. M., <i>et al.</i> , "The Isolation and Characterization of a Norwalk Virus-specific cDNA," <i>J. Clin. Invest.</i> 87:1456-1461 (1991), American Society for Clinical Investigation Inc. |
| | AT | 12 | Minenkova, O. O., <i>et al.</i> , "Design of specific immunogens using filamentous phage as the carrier," <i>Gene</i> 128:85-88 (1993), Elsevier Science Publishers B.V. |

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| | AA13 | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
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| | AL13 | | | | | | Yes No |
| | AM13 | | | | | | Yes No |
| | AN13 | | | | | | Yes No |
| | AO13 | | | | | | Yes No |
| | AP13 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|--------------|----|-----------|---|
| MM ↓ V | AR | <u>13</u> | Morein, B., <i>et al.</i> , "Iscom, a novel structure for antigenic presentation of membrane proteins from enveloped viruses," <i>Nature</i> 308:457-460 (1984), Nature Publishing Group |
| | AS | <u>13</u> | Neurath, A. R., <i>et al.</i> , "Hepatitis B Virus Surface Antigen (HBsAg) As Carrier for Synthetic Peptides Having An Attached Hydrophobic Tail," <i>Mol. Immunol.</i> 26:53-62 (1989), Pergamon Press |
| | AT | <u>13</u> | O'Shea, E. K., <i>et al.</i> , "Mechanism of Specificity in the Fos-Jun Oncoprotein Heterodimer," <i>Cell</i> 68:699-708 (1992), Cell Press |

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| | AA14 | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
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| | AL14 | | | | | | Yes No |
| | AM14 | | | | | | Yes No |
| | AN14 | | | | | | Yes No |
| | AO14 | | | | | | Yes No |
| | AP14 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|---------|----|----|--|
| MM ↓ | AR | 14 | Perham, R. N., <i>et al.</i> , "Engineering a peptide epitope display system on filamentous bacteriophage," <i>FEMS Microbiol. Rev.</i> 17:25-31 (1995), Elsevier Science Publishers on behalf of the Federation of European Microbiological Societies |
| | AS | 14 | Petrenko, V. A., <i>et al.</i> , "A library of organic landscapes on filamentous phage," <i>Protein Eng.</i> 9:797-801 (1996), Oxford University Press |
| | AT | 14 | Pumpens, P. and Grens, E., "Hepatitis B core particles as a universal display model: a structure-function basis for development," <i>FEBS Lett.</i> 442:1-6 (January 1999), Elsevier Science B.V., for Federation of European Biochemical Societies. |

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| | AA15 | | | | | | |
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| | AL15 | | | | | | Yes No |
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| | AN15 | | | | | | Yes No |
| | AO15 | | | | | | Yes No |
| | AP15 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|---------|----|-----------|---|
| MM ↓ | AR | <u>15</u> | Raychaudhuri, S. and Rock, K. L., "Fully mobilizing host defense: Building better vaccines," <i>Nature Biotechnol.</i> 16:1025-1031 (November 1998), Nature America Inc. |
| | AS | <u>15</u> | Redfield, R. R., <i>et al.</i> , "Disseminated Vaccinia in a Military Recruit with Human Immunodeficiency Virus (HIV) Disease," <i>N. Eng. J. Med.</i> 316:673-676 (1987), Massachusetts Medical Society. |
| | AT | <u>15</u> | Renner, W. A., <i>et al.</i> , "Recombinant Cyclin E Expression Activates Proliferation and Obviates Surface Attachment of Chinese Hamster Ovary (CHO) Cells in Protein-Free Medium," <i>Biotech. Bioeng.</i> 47:476-482 (1995), John Wiley & Sons Inc. |

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| | AA16 | | | | | |
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| | AL16 | | | | | Yes No |
| | AM16 | | | | | Yes No |
| | AN16 | | | | | Yes No |
| | AO16 | | | | | Yes No |
| | AP16 | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|--------------|----|-----------|--|
| MM ↓ V | AR | <u>16</u> | Romagnani, S., "The Th1/Th2 paradigm," <i>Immunol. Today</i> 18:263-266 (June 1997), Elsevier-Science Ltd |
| | AS | <u>16</u> | Schlesinger, S., Alphaviruses - vectors for the expression of heterologous genes," <i>TIBTECH</i> 11:18-22 (1993), Elsevier Science Publishers Ltd. (UK). |
| | AT | <u>16</u> | Sedlik, C., <i>et al.</i> , "Recombinant parvovirus-like particles as an antigen carrier: A novel nonreplicative exogenous antigen to elicit protective antiviral cytotoxic T cells," <i>Proc. Natl. Acad. Sci. USA</i> 94:7503-7508 (July 1997), National Academy of Sciences |

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| | AA17 | | | | | | |
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| | AI17 | | | | | | |
| | AJ17 | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
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| | AL17 | | | | | | Yes No |
| | AM17 | | | | | | Yes No |
| | AN17 | | | | | | Yes No |
| | AO17 | | | | | | Yes No |
| | AP17 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|---------|----|-----------|---|
| MM ↓ | AR | <u>17</u> | Shen, L., <i>et al.</i> , "Recombinant Virus Vaccine-Induced SIV-Specific CD8+ Cytotoxic T Lymphocytes," <i>Science</i> 252:440-443 (1991), American Association for the Advancement of Science |
| | AS | <u>17</u> | Stollar, V., "Togaviruses in Cultured Arthropod Cells," in <i>The Togaviruses: Biology, Structure, Replication</i> , Schlesinger, R. W. (ed.), Academic Press, New York, NY, pp. 612-615 (1980) |
| | AT | <u>17</u> | Strauss, J. H. and Strauss, E. G., "The Alphaviruses: Gene Expression, Replication, and Evolution," <i>Microbiol. Rev.</i> 58:491-562 (1994), American Society for Microbiology |

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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
|------------------|------|-----------------|------|---------|-------|-----------|-------------|
| | AL18 | | | | | | Yes No |
| | AM18 | | | | | | Yes No |
| | AN18 | | | | | | Yes No |
| | AO18 | | | | | | Yes No |
| | AP18 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

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| MM ↓ V | AR | <u>18</u> | Tanimori, H., <i>et al.</i> , "Enzyme Immunoassay of Neocarzinostatin Using 3-Galactosidase as Label," <i>J. Pharm. Dyn.</i> 4:812-819 (1981), Blackwell Publishing, Inc. |
| | AS | <u>18</u> | Topchieva, I. and Karezin, K., "Self-Assembled Supramolecular Micellar Structures Based on Non-ionic Surfactants and Cyclodextrins," <i>J. Colloid Interface Sci.</i> 213:29-35 (May 1999), Academic Press |
| | AT | <u>18</u> | Townsend, A. and Bodmer, H., "Antigen Recognition by Class I-Restricted T Lymphocytes," <i>Ann. Rev. Immunol.</i> 7:601-624 (1989), Annual Reviews Inc. |

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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
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| | AA19 | | | | | | |
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| | AL19 | | | | | | Yes No |
| | AM19 | | | | | | Yes No |
| | AN19 | | | | | | Yes No |
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| | AP19 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

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|--------------|----|-----------|---|
| MM ↓ V | AR | <u>19</u> | Twomey, T., <i>et al.</i> , "Structure and immunogenicity of experimental foot-and-mouth disease and poliomyelitis vaccines," <i>Vaccine</i> 13:1603-1610 (1995), Elsevier Science Ltd. |
| | AS | <u>19</u> | Ulrich, R., <i>et al.</i> , "Core Particles of Hepatitis B Virus as Carrier for Foreign Epitopes," <i>Adv. in Virus Res.</i> 50:141-182 (January 1998), Academic Press |
| | AT | <u>19</u> | VanCott, T. C., <i>et al.</i> , "Antibodies with Specificity to Native gp120 and Neutralization Activity against Primary Human Immunodeficiency Virus Type 1 Isolates Elicited by Immunization with Oligomeric gp160," <i>J. Virol.</i> 71:4319-4330 (June 1997), American Society for Microbiology |

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| | AA20 | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
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| | AL20 | | | | | | Yes No |
| | AM20 | | | | | | Yes No |
| | AN20 | | | | | | Yes No |
| | AO20 | | | | | | Yes No |
| | AP20 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

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|  | MM | | |
| | AR | <u>20</u> | Warnes, A., <i>et al.</i> , "Expression of the measles virus nucleoprotein gene in <i>Escherichia coli</i> and assembly of nucleocapsid-like structures," <i>Gene</i> 160:173-178 (1995), Elsevier Science B.V. |
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| | AT | <u>20</u> | Xiong, C., <i>et al.</i> , "Sindbis Virus: An Efficient, Broad Host Range Vector for Gene Expression in Animal Cells," <i>Science</i> 243:1188-1191 (1989), The American Association for the Advancement of Science |

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| | AA21 | | | | | | |
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| | AE21 | | | | | | |
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| | AG21 | | | | | | |
| | AH21 | | | | | | |
| | AI21 | | | | | | |
| | AJ21 | | | | | | |
| | AK21 | | | | | | |

FOREIGN PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
|------------------|------|-----------------|------|---------|-------|-----------|-------------|
| | AL21 | | | | | | Yes No |
| | AM21 | | | | | | Yes No |
| | AN21 | | | | | | Yes No |
| | AO21 | | | | | | Yes No |
| | AP21 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|--------------|----|-----------|--|
| MM ↓ V | AR | <u>21</u> | Zang, M., <i>et al.</i> , "Production of Recombinant Proteins in Chinese Hamster Ovary Cells Using a Protein-Free Cell Culture Medium," <i>Bio/technology</i> 13:389-392 (1995), Nature Publishing Company |
| | AS | <u>21</u> | Invitrogen Manual, "Sindbis Expression System Version E," Catalog No. K750-01, Life Technologies (April 2002) |
| | AT | <u>21</u> | Boorsma, M., <i>et al.</i> , "A temperature-regulated replicon-based DNA expression system," <i>Nature Biotechnol.</i> 18:429-432 (April 2000), Nature America Inc. |

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FORM PTO-1449

INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.
1700.0030003/JAG/BJD/SJEAPPLICATION NO.
10/733,582FIRST NAMED INVENTOR
Renner *et al.*FILING DATE
December 12, 2003ART UNIT
1614

U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
|---------------------|------|--------------------|------|------|-------|-----------|-------------|
| | AA22 | | | | | | |
| | AB22 | | | | | | |
| | AC22 | | | | | | |
| | AD22 | | | | | | |
| | AE22 | | | | | | |
| | AF22 | | | | | | |
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|---------------------|------|--------------------|------|---------|-------|-----------|-------------|
| | AL22 | | | | | | Yes No |
| | AM22 | | | | | | Yes No |
| | AN22 | | | | | | Yes No |
| | AO22 | | | | | | Yes No |
| | AP22 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

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|---------|----|-----------|--|
| MM ↓ | AR | <u>22</u> | Esposito, G., <i>et al.</i> , "Conformational study of a short <i>Pertussis</i> toxin T cell epitope incorporated in a multiple antigen peptide template by CD and two-dimensional NMR. Analysis of the structural effects on the activity of synthetic immunogens," <i>Eur. J. Biochem.</i> 217:171-187 (1993), Blackwell Science Ltd on behalf of the Federation of European Biochemical Societies |
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| | AA23 | | | | | | |
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| | AS | <u>23</u> | Lo, K.K.-W., <i>et al.</i> , "Surface-modified mutants of cytochrome P450 _{cam} : enzymatic properties and electrochemistry," <i>FEBS Lett.</i> 451:342-346, Elsevier Science B.V. (May 1999). |
| | AT | <u>23</u> | Rudolf, M.P., <i>et al.</i> , "Molecular Basis for Nonanaphylactogenicity of a Monoclonal Anti-IgE Antibody," <i>J. Immunol.</i> 165:813-819, American Association of Immunologists (July 2000). |

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|------------------|-----------------|------|------|-------|-----------|-------------|
| | AA24 | | | | | |
| | AB24 | | | | | |
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| | AD24 | | | | | |
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| | AL24 | | | | | Yes No |
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| | AN24 | | | | | Yes No |
| | AO24 | | | | | Yes No |
| | AP24 | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

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|---------|----|-----------|--|
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| | AS | <u>24</u> | Zhou, S., and Standring, D.N., "Cys Residues of the Hepatitis B Virus Capsid Protein Are Not Essential for the Assembly of Viral Core Particles but Can Influence Their Stability," <i>J. Virol.</i> 66:5393-5398, American Society for Microbiology (1992). |
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| | AA25 | | | | | | |
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| | AL25 | | | | | | Yes No |
| | AM25 | | | | | | Yes No |
| | AN25 | | | | | | Yes No |
| | AO25 | | | | | | Yes No |
| | AP25 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|---------|----|-----------|---|
| MM ↓ | AR | <u>25</u> | International Search Report for International Application No. PCT/IB99/01925, mailed on June 29, 2000, European Patent Office, The Hague, Netherlands |
| | AS | <u>25</u> | |
| | AT | <u>25</u> | |

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